Air Solutions Catalog

Elbit Systems™

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Elbit Systems Land specializes in the design, development, manufacture and integration of a high-performance comprehensive array of air-to-ground munitions and aerial self-protection systems for airborne platforms against multiple threat types. The combat-proven solutions feature sophisticated technologies and subsystems, providing enhanced operational capabilities while increasing safety and survivability. Elbit Systems Land world-class weapon systems and products have been qualified by the Israeli Air Force (IAF), US military and other NATO members.

Air-to-ground munitions

Short and long-range precision munitions and missile solutions with unique capabilities for accurate hits and effective neutralization of stationary and moving targets.

Aerial self-protection systems

Aircraft protection systems including expendable countermeasures, countermeasure dispensing systems (CMDS), and advanced tactical launched decoys. The systems increase survivability against most threats on the modern battlefield and deliver high performance for mission success.

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Cover: Davidi Vardi. **14:** Avichai Socher (SPARC-2); Yissachar Ruas (SPARC-3/XM216). **Page 15:** Yissachar Ruas (Top right); Avichai Socher (SPARC-6). **Page 16:** Avichai Socher (FG-2 Dual Flare); Yissachar Ruas (FG-3). **Page 17:** Davidi Vardi. **Page 18:** Yissachar Ruas

Air-to-ground munitions

The operational requirements of the modern dynamic battlefield demand affordable, accurate, precision guided weapons. A center of excellence with decades of experience, advanced technologies and in-house capabilities, Elbit Systems Land offers combat-proven, rigid penetration general purpose (GP) bombs, guidance kits, supersonic missiles and rockets.

The next generation air-to-ground systems deliver precision-strike capability, operational flexibility, increased survivability, and enhanced mission effectiveness against a wide range of targets. A comprehensive range of combat-proven precision guidance kits and high-performance advanced standoff weapons meet the critical needs of the modern battlefield for diverse missions and applications, providing launch versatility, pinpoint accuracy, and long-range target acquisition with minimal collateral damage.

Rampage

Air-to-ground long-range precise supersonic missile

An innovative solution based on advanced technologies, the Rampage long-range air-to-ground precision strike missile offers high survivability and operational flexibility for maximum mission effectiveness. The fire-and-forget supersonic missile enables a salvo strike against high-value targets. The system features solid booster, general purpose warhead and Navigation Satellite System/INS with robust anti-jamming capabilities. Compatible with a variety of aircraft, the Rampage features pre-programmable mission profiles or re-programmable in-flight capabilities.

Delilah

Standoff precision-strike long-range loitering missile

An advanced loitering standoff missile, Delilah offers unique operational capabilities for long-range search, acquisition, and precision strikes of high value moving, stationary or re-locatable targets. Delilah missiles feature an advanced electro-optical (E/O) seeker for day/night and all-weather target discrimination, a cruise speed of Mach 0.5 to 0.7 and maximum range of 250km, real-time video imagery (Man-in-the-Loop) for selectable hit point, and flexible mission profile capabilities. The missile offers multi-platform launch versatility for various fixed-wing aircraft.

REST – Range Extension Smart Tail

Guidance kit for extended range precision strikes

A guidance kit for general purpose warheads, the REST upgrades the weapons capability of any aircraft, converting warheads into an autonomous and accurate standoff weapon system for long-range precision strikes. The system incorporates a smart tail for navigation and upper wings for range extension, up to 120km. Cost-effective and easy to operate, REST delivers maximum operational flexibility with enhanced precision. The guidance kit is compatible with Western and Eastern aircraft and standard warheads.

Smart Tail (ST)

Precision-guided munition to attack targets at short and medium ranges

Enables converting standard warheads to cost-effective precision strike munition with INS/GNSS guidance.

Lizard™

Modular guidance kits for general purpose bombs

A family of modular guidance kits, Lizard converts general-purpose bombs to precision-strike munitions with advanced target acquisition and engagement capabilities to seek and destroy a wide range of targets. The modular kits offer the option of laser seeker or dual mode (GPS/INS and laser) guidance and enable efficient interchange of seekers and warheads. The versatile Lizard systems are compatible with most aircraft, GP bombs and penetration warheads, delivering high accuracy with minimal collateral damage.

Lizard™-3 Laser

An advanced laser guidance kit featuring IMU for proportional navigation, highly effective against moving targets (up to 100km/h).

Lizard™-4 Laser and GPS/INS

Dual mode laser guidance kit with GPS/INS for high accuracy. The autonomous weapon has an extended standoff range of up to 40km.

Mini Lizard

Gliding guided munitions for light attack and mission aircraft

An affordable, small gliding precision-guided weapon, the Mini Lizard provides high probability first shot hit for a wide range of targets, with minimum collateral damage. The guided munitions feature a large omni envelope (360°), for rapid deployment toward a variety of targets. The Mini Lizard carries a 9kg payload and features semi-active laser (SAL) and/or GPS guidance.

GATR

Guided Advanced Tactical Rocket

An advanced 70mm laser guided rocket, the GATR provides the operator with the ability to engage a wide array of targets with the effect of heavy missiles, with unmatched precision-strike capability at ranges of up to 10km. GATR is designed to significantly improve hit probability and reduce collateral damage with lock-on before launch (LOBL) capability, a crucial feature in crowded urban warfare scenarios. GATR is equipped with a warhead that can penetrate 20cm of reinforced concrete, and an advanced electronic safe and arm fuze. By controlling the fuze delay time and trajectory shaping, GATR dramatically improves the in-room blast effect and hit-to-kill ratio. Designed for missions against stationary or fast moving soft or light armored targets, the system can be launched from Eastern and Western aerial platforms.

MPR 500/1000/2000

Next generation multi-purpose rigid bombs

A family of combat-proven rigid penetration general-purpose (GP) bombs, the MPR delivers high penetration capabilities with 500, 1000, and 2000 lb. warheads. The next generation surface attack bombs provide high reliability of more than 95% with low target engagement cost. No "J" effect guarantees a straight penetration path to the target. MPR GP bombs feature highly effective, advanced warheads with concentrated blast and controlled fragmentation effect for high kill probability and low collateral damage against a wide range of ground targets in open terrain.

MPR 500

Fully compatible with the MK 82 variety guidance kits and standard fuzes and approved by Boeing as compatible with the Joint Direct Attack Munition (JDAM) guidance kit. The MPR 500 contains 26,000 controlled fragments and can penetrate four reinforced concrete walls or floors 200mm thick each, or 1m of reinforced concrete.

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MPR 1000

Fully compatible with the MK 83 general-purpose bomb in aircraft configuration, MK 83 variety guidance kits, and standard fuzes. The MPR 1000 can penetrate 1.5m reinforced concrete.

MPR 2000

Fully compatible with the MK 84 general-purpose bomb in aircraft configuration, MK 84 variety guidance kits, and standard fuzes. The MPR 2000 can penetrate 2.9m of reinforced concrete.

MK-8X

General purpose warhead

Elbit Systems Land's primary air-to-ground GP bombs, the Mark 80 series, includes three basic weight categories: MK-84 (1000kg), MK-83(500kg) and MK-84(250kg). Launched by fixedwing aircraft, the MK-8X family of bombs is effective against blast and fragmentation-sensitive targets such as building, troop concentrations and light armored vehicles.

All MK-8X GP bombs are compatible with a variety of fuzes and include both nose and tail fuze wells. The bombs can be fitted with guided or unguided nose and tail kits for various operational roles.

Tailor-Made Warheads

One-stop-shop for integrated warheads

Incorporating unique knowhow and expertise, Elbit Systems Land designs and manufactures integrated warheads for various weapon systems, using a variety of cure-cast and melt-cast explosives for optimized performance. The tailor-made warheads are developed according to customer requirements, such as mechanical interfaces, performance and environmental conditions.

Our special facilities include design and simulation labs, test and validation equipment and full production capabilities for a range of warhead types, including shape charge, blast, fragmentation, penetrators, interception and multi-purpose warheads.

Fuzing Solutions

A full range of combat-proven fuzing solutions to meet customer operational needs and the requirements of new and existing weapon systems. Integrated with advanced technologies, the high-performance fuzes provide unprecedented flexibility, reliability, and safety in compliance with MIL-STD-1316 and the highest quality standards.

ID260MF Fuze Series

The ID260MF fuze series is designed for maximum functionality and hard target survivability and is compatible with a wide range of air-to-ground weapon systems. ID260MF fuzes are in operational use by the Israel Air Force and by other air forces worldwide. The series offers unique features and effective solutions for all fuzing requirements and applications in several standard versions. The fuzes feature a modifiable and upgradable communication protocol and customizable arm and delay times.

Low Altitude Proximity Fuze 980LAPF/TA

A combat-proven proximity fuze that dramatically increases weapon effectiveness of high explosive bombs against soft and light targets. The 980LAPF/TA features a rapid impact backup operation mode, and several independent safety features for enhanced safety and reliability. The system is compatible with a range of high explosive munitions, and fits into a 3" nose GP bomb fuzewell

Small Fuze Units (SFU)

Electronic safe and arm (ESA)-based fuzing solutions for small air-to-ground munitions, designed for hard target environments without compromising reliability. The SFU fully complies with MIL-STD-1316 and STANAG 4187. The fuze has two standard configurations: Ø60mm x 110mm, 800gr and Ø50mm x 80mm, 450gr.

Aircraft Protection

A world leader in expendable countermeasures and smart dispensing systems with decades of experience in the design and production of sophisticated, threat-adaptive aircraft protection systems, Elbit Systems Land offers reliable and effective solutions for high-performance defense applications.

The autonomous and modular precision missile protection systems are compatible with a wide range of aircraft and helicopters. Advanced and effective flares and decoy solutions increase flight safety and survivability against multiple threats and in various combat scenarios, day/night and in all weather conditions.

SPARCS-FLARES™

The high-performance advanced spectral IR decoys offer a “one-flare solution” effective against all new and earlier generation air-to-air and ground-to-air missiles, for increased survivability and exclusive operational benefits. The spectral IR decoys offer high energetic protection with minimal rise time, high color ratio, and obscureness (dark flare). The reliable and effective expendable countermeasures can be ejected from modern fixed-wing fighter aircraft, helicopters, and transport aircraft.

SPARC-1

A unique, small-size flare designed to provide protection and enhanced survivability for low signature aircraft with a limited payload, such as light helicopters and UAS.

SPARC-2

A unique flare with two half-size pellets designed to enhance aircraft protection by loading double the number of flares in every dispenser. The flare has a double shot squib operated by two voltages.

SPARC-3/XM216

Spectral IR decoys, 1”x1”, with a combat-proven record against the threat of advanced infrared heat-seeking missiles with dual-band target discrimination.

SPARC-6

Spectral IR decoys, 2" x 1", with a combat-proven record against the threat of advanced infrared heat-seeking missiles with dual-band target discrimination.

SPARC-26/50

A reliable and effective 26/50mm diameter advanced spectral decoy suitable for platforms adapted to Eastern countermeasure dispensing systems.

SPARC-36

A reliable and effective 36mm diameter advanced spectral decoy suitable for Navy platforms adapted to round 36mm diameter countermeasures.

MTV Flares

MTV flares offer advanced protection against heat-seeking missiles for a wide range of aircraft and helicopters. The flares are fully compatible with all Western dispensing systems.

FG-1 Mini Flare

A unique small-size flare designed to provide protection and enhanced survivability for low signature aircraft with a limited payload, such as light helicopters and UAVs.

FG-2 Dual Flare

A unique flare with two half-size pellets, designed to enhance aircraft protection by loading double the number of flares in every dispenser. The flare has a double shot squib operated by two voltages.

FG-3

Compatible in form and function to the M206, the FG-3 can be ejected from all Western dispensing systems, including ALE 40/47, M-130, WIZARDS, and others. The flare is equipped with a PSM (Pyrotechnic Sequencing Mechanism) to ensure aircraft safety and prevent ignition inside the magazine.

FG-6

Compatible in form and function to the MJU-7, the FG-6 can be ejected from all Western dispensing systems, including ALE 40/47, M-130, WIZARDS, and others. The flare is equipped with a PSM (Pyrotechnic Sequencing Mechanism) to ensure aircraft safety and prevent ignition inside the magazine.

FG-26/50

A reliable and effective 26/50mm diameter MTV flare suitable for platforms adapted to Eastern countermeasure dispensing systems.

FG-36

A reliable and effective 36mm diameter MTV flare suitable for Navy platforms adapted to round 36mm diameter countermeasures.

Chaff

Protection against radar guided missiles

Providing combat-proven protection against radar guided missiles, Elbit Systems Land chaff cartridges can be deployed from all modern aircraft, helicopters, and transport aircraft.

Single chaff cartridge

Suitable for a variety of aircraft

Dual chaff cartridge

Double the payload in the same magazine

Chaff package

Customizable frequency range up to 40GHz, creates massive saturation of an area for safe, screened flight corridors

Delayed chaff cartridge

Unique patent for delaying fiber dispersion

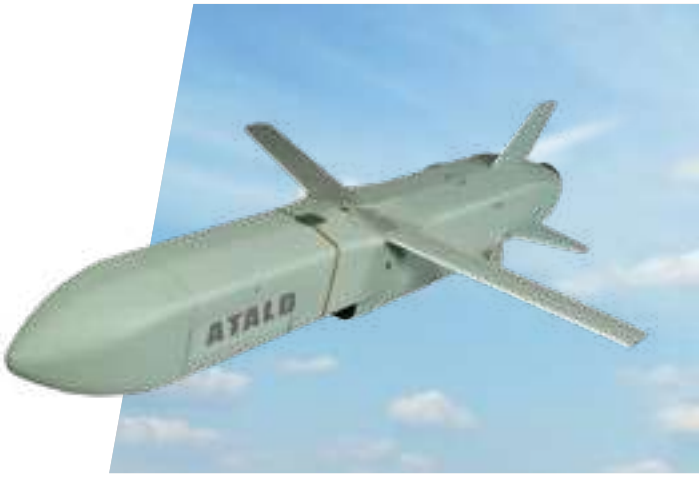
Countermeasure Dispensing Systems (CMDS)

An airborne, computer-controlled self-defense system for chaff, flare, and advanced decoy dispensing, the CMDS can operate as a standalone system or integrated in electronic warfare (EW) suites. The NVG-compatible mini control and display unit provides a visual display of threats and generates an audio warning. The system interfaces with EW warning systems, aircraft avionics and controls. The CMDS can operate up to 32 “smart dispensers” of any type, including internal, dual, and scab-on, and features a pod version with adjustable dispensing directions.

ATALD

Advanced Tactical Air-Launched Decoy and Target

An air-launched standoff decoy system and air-launched target, the ATALD features a modular design for multiple aerial target scenarios. The active decoy is used in Suppression of Enemy Air Defense (SEAD) missions, saturating enemy air defense systems with multiple false targets with individual target radar cross sections (RCS) and velocity. The ATALD can simulate attacks against early warning radars, causing air defense systems to expend resources on the decoys. The system features programmable Individual Apparent Target Flight behavior, with the option to select an ad-hoc target of opportunity instead of the pre-programmed mission.



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